

**WHAT IS CLAIMED:**

1. A method for, in a data store comprising a first set of one or more data items, accessing a selected set  
5 comprising a second set of one or more data items in accordance with a selection rule, the method comprising the steps of:

creating a profile of the data store, the profile comprising a profile rule defining a profile set, wherein  
10 the profile set comprises a third set of one or more data items in accordance with the profile rule;

responsive to a determination that there is a non-empty intersection of the selected set and the profile set, extracting a fourth set of one or more data items from  
15 the data store in accordance with the selection rule; and

responsive to a determination that there is not a non-empty intersection of the selected set and the profile set, providing an indication that the data store does not include data items in the selected set.  
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2. The method of claim 1 wherein the first set of one or more data items includes numeric data.

3. The method of claim 1 wherein the first set of  
25 one or more data items includes string data.

4. The method of claim 1 wherein the first set of one or more data items includes date information.

5. The method of claim 1 wherein the first set of  
30 one or more data items includes graphical data.

6. The method of claim 1 wherein the first set of one or more data items includes sound data.

5 7. The method of claim 1 wherein the first set of one or more data items includes video data.

8. The method of claim 1 wherein the data store includes a relational database.

10 9. The method of claim 1 wherein the data store includes a hierarchical database.

15 10. The method of claim 1 wherein the data store includes an object oriented database.

11. The method of claim 1 wherein the data store includes an input/output software library.

20 12. The method of claim 1 wherein the data store includes a disk storage device.

13. The method of claim 1 wherein the data store includes a plurality of disk storage devices.

25 14. The method of claim 13 wherein the plurality of disk storage devices includes a redundant array of independent disks.

30 15. The method of claim 1 wherein the data store includes a random access memory.

16. The method of claim 1 wherein the creating a profile step take place when the data store is otherwise idle.

5           17. A computer program product directly loadable into the internal memory of a digital computer, comprising software code portions for performing, when said product is run on a computer, the method of, in a data store comprising a first set of one or more data items, accessing  
10 a selected set comprising a second set of one or more data items in accordance with a selection rule, the method comprising the steps of:

          creating a profile of the data store, the profile comprising a profile rule defining a profile set, wherein  
15 the profile set comprises a third set of one or more data items in accordance with the profile rule;

          responsive to a determination that there is a non-empty intersection of the selected set and the profile set, extracting a fourth set of one or more data items from  
20 the data store in accordance with the selection rule; and

          responsive to a determination that there is not a non-empty intersection of the selected set and the profile set, providing an indication that the data store does not include data items in the selected set.

25           18. The computer program product claim 17 wherein the first set of one or more data items includes numeric data.

          19. The computer program product claim 17 wherein the  
30 first set of one or more data items includes string data.

20. The computer program product claim 17 wherein the first set of one or more data items includes date information.

5           21. The computer program product claim 17 wherein the first set of one or more data items includes graphical data.

10           22. The computer program product claim 17 wherein the first set of one or more data items includes sound data.

23. The computer program product claim 17 wherein the first set of one or more data items includes video data.

15           24. The computer program product claim 17 wherein the data store includes a relational database.

25. The computer program product claim 17 wherein the data store includes a hierarchical database.

20           26. The computer program product claim 17 wherein the data store includes an object oriented database.

25           27. The computer program product claim 17 wherein the data store includes an input/output software library.

28. The computer program product claim 17 wherein the data store includes a disk storage device.

30           29. The computer program product claim 17 wherein the data store includes a plurality of disk storage devices.

30. The computer program product claim 29 wherein the plurality of disk storage devices includes a redundant array of independent disks.

5           31. The computer program product claim 17 wherein the data store includes a random access memory.

10           32. The computer program product claim 17 wherein the creating a profile step take place when the data store is otherwise idle.

33. A computer program product stored on a computer usable medium, comprising:

15           computer readable program means for storing data, the means for storing data being operable to store a first set of one or more data items;

20           computer readable program means for extracting a selected set from the data store, wherein the selected set comprises a second set of one or more data items in accordance with a selection rule;

25           computer readable program means for generating a profile of the first set of one or more data items, the profile comprising a profile rule defining a profile set, wherein the profile set comprises a third set of one or more data items in accordance with the profile rule; and

            computer readable program means for determining if there is a non-empty intersection of the selected set and the profiler set.

30           34. The computer program product of claim 33 wherein the first set of one or more data items includes numeric data.

35. The computer program product of claim 33 wherein the first set of one or more data items includes string data.

5           36. The computer program product of claim 33 wherein the first set of one or more data items includes date information.

10           37. The computer program product of claim 33 wherein the first set of one or more data items includes graphical data.

15           38. The computer program product of claim 33 wherein the first set of one or more data items includes sound data.

20           39. The computer program product of claim 33 wherein the first set of one or more data items includes video data.

            40. The computer program product of claim 33 wherein the computer readable program means for storing data includes a relational database.

25           41. The computer program product of claim 33 wherein the computer readable program means for storing data includes a hierarchical database.

30           42. The computer program product of claim 33 wherein the computer readable program means for storing data includes an object oriented database.

43. The computer program product of claim 33 wherein the computer readable program means for storing data includes an input/output software library.

5           44. The computer program product of claim 33 wherein the computer readable program means for storing data includes a disk storage device.

10           45. The computer program product of claim 33 wherein the computer readable program means for storing data includes a plurality of disk storage devices.

15           46. The computer program product of claim 45 wherein the plurality of disk storage devices includes a redundant array of independent disks.

20           47. The computer program product of claim 33 wherein the computer readable program means for storing data includes a random access memory.

25           48. The computer program product of claim 33 wherein the computer readable program means for generating a profile generates the profile when the computer readable program means for storing data is otherwise idle.

          49. An apparatus having a data store operable to store a first set of one or more data items, the apparatus further comprising:

30           a selector for extracting a selected set from the data store, wherein the selected set comprises a second set of one or more data items in accordance with a selection rule;

          a profiler for generating a profile of the data store, the profile comprising a profile rule defining a profile

set, wherein the profile set comprises a third set of one or more data items in accordance with the profile rule; and  
a selection checker for determining if there is a non-empty intersection of the selected set and the profiler set.

50. The apparatus of claim 49 wherein the first set of one or more data items includes numeric data.

51. The apparatus of claim 49 wherein the first set of one or more data items includes string data.

52. The apparatus of claim 49 wherein the first set of one or more data items includes date information.

53. The apparatus of claim 49 wherein the first set of one or more data items includes graphical data.

54. The apparatus of claim 49 wherein the first set of one or more data items includes sound data.

55. The apparatus of claim 49 wherein the first set of one or more data items includes video data.

56. The apparatus of claim 49 wherein the first set of one or more data items includes a relational database.

57. The apparatus of claim 49 wherein the data store includes a hierarchical database.

58. The apparatus of claim 49 wherein the data store includes an object oriented database.



59. The apparatus of claim 49 wherein the data store includes an input/output software library.

5 60. The apparatus of claim 49 wherein the data store includes a disk storage device.

61. The apparatus of claim 49 wherein the data store includes a plurality of disk storage devices.

10 62. The apparatus of claim 61 wherein the plurality of disk storage devices includes a redundant array of independent disks.

15 63. The apparatus of claim 49 wherein the data store includes a random access memory.

20 64. The apparatus of claim 49 wherein the profiler generates the profile when the data store is otherwise idle.